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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,466	01/21/2004	Carl J. Ledbetter	003797.00717	1396

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EXAMINER
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LAO, LUN YI

ART UNIT	PAPER NUMBER
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2629

DATE MAILED: 07/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/760,466

Applicant(s)

LEDBETTER ET AL.

Examiner

LUN-YI LAO

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/9/2006, 11/1/2006, 5/19/2006, 11/29/2009
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No 11/193,460. Although the conflicting claims are not identical, they are not patentably distinct from each other because they claim the same subject matter of an input device for scrolling images on a display having a finger-engagable control member having rotation sensor and a tilt sensor.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Comparing two copending applications as below:

10/760,466(claim 1)	11/193, 460(claims 13 and 14)
An input device for scrolling an image comprising a housing having at least one opening	An input device for scrolling an image comprising a housing having at least one opening
A scroll wheel assembly provide within said housing, said scroll wheel assembly including a rotatable member that is rotatable about a first axis extending within said housing and privoatally movable about a second axis within said opening, said first axis and said second axis being perpendicular to each other;	A finger-engagable control member provided within said housing and having a portion extending through said opening permitting user manipulation thereof, said finger-engagable control member being endlessly rotatable about a rotating axis extending within the housing and tiltable about a tilting axis,
A movement sensing system configured to sense rotational movement of said rotatable member about said first axis for scrolling the image in a first scrolling direction;	A rotation sensor for sensing rotation of the finger-engagable control member; wherein when the finger-engagable control member is rotated, a signal is transmitted to scroll the image in a first scroll direction and wherein when the finger-engagable control member is pivoted, a signal is transmitted to scroll

	image in a second scroll direction, the second scroll direction being perpendicular to the first scroll direction;
A sensor for detecting an extension force based on the pivotal movement of said rotatable member about the second axis for scrolling the image in a second scrolling direction perpendicular to the first scrolling direction; wherein the image is operable to scroll in the second direction responsive to the detected extension force.	A tilt sensing system that determines when said rotatable member is pivoted relative to the housing in a direction perpendicular to the axis.

3. Claims 1-12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-21 of copending Application No 11/193,483. Although the conflicting claims are not identical, they are not patentably distinct from each other because they claim the same subject matter of an input device for scrolling images on a display having a finger-engagable control member having rotation sensor and a tilt sensor.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

10/760,466(claim 1)	11/193, 483(claims 1 and 2)
An input device for scrolling an image comprising a housing having at least one opening	An input device for scrolling an image; said device comprising a housing having an opening
A scroll wheel assembly provide within said housing, said scroll wheel assembly including a rotatable member that is rotatable about a first axis extending within said housing and privoatally movable about a second axis within said opening, said first axis and said second axis being perpendicular to each other;	A finger-engagable control member provided within the housing and having a portion extending through said opening permitting user manipulation thereof, the finger-engagable control member being endlessly rotatable about a rotating axis extending within the housing and tiltable about a tilting axis,
A movement sensing system configured to sense rotational movement of said rotatable member about said first axis for scrolling the image in a first scrolling direction;	A rotation sensor for sensing rotation of the finger-engagable control member; wherein when the finger-engagable control member is control rotated, a signal is transmitted to scroll the image in a first scroll direction and wherein when the finger-engagable control member is titled, a signal is transmitted to scroll image in a second scroll direction, the second scroll

	direction being perpendicular to the first scroll direction;
A sensor for detecting an extension force based on the pivotal movement of said rotatable member about the second axis for scrolling the image in a second scrolling direction perpendicular to the first scrolling direction; wherein the image is operable to scroll in the second direction responsive to the detected extension force.	A tilt sensing for sensing tilting of the finger-engagable control member.

4. Claims 13-20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 11/193,460 in view of Takinami(6,016,110).

This is a provisional obviousness-type double patenting rejection.

The copending Application No. 11/193,460 fail to disclose a first speed will be changed to a second speed which is greater than the first speed if the period time is greater than a predetermined period of time.

Takinami teach a first scrolling speed( $V_b$ ) will be changed to a second speed(e.g.  $V_c$  or  $V_d$ ) which is greater than the first speed( $V_b$ ) if the period time is greater than a predetermined period of time(see figure 2; column 1, lines 61-68 and column 2, lines 1-

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13). It would have been obvious to have modified the copending application(11/193,460) as modified with the teaching of Takinami, so a user could be more fast to reach the information that he/she is looking for.

5. Claims 13-20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 11/193,483 in view of Takinami(6,016,110).

This is a provisional obviousness-type double patenting rejection.

The copending Application No. 11/193,483 fail to disclose a first speed will be changed to a second speed which is greater than the first speed if the period time is greater than a predetermined period of time.

Takinami teach a first scrolling speed( $V_b$ ) will be changed to a second speed(e.g.  $V_c$  or  $V_d$ ) which is greater than the first speed( $V_b$ ) if the period time is greater than a predetermined period of time(see figure 2; column 1, lines 61-68 and column 2, lines 1-

13). It would have been obvious to have modified the copending application(11/193,483) as modified with the teaching of Takinami, so a user could be more fast to reach the information that he/she is looking for.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between



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the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deruginsky et al(6,555,768) in view of Naoyuki(JP 2000-200147).

As to claims 1-12, Deruginsky et al teach an input device for scrolling an image comprising a housing having at least one opening(see figure 4); a scroll wheel assembly provide within the housing(see figures 1, 4; column 2, lines 1-8; column 3, lines 58-63 and column 5, lines 36-40); the scroll wheel assembly(2) including a rotatable member(2) that is rotatable about a first axis extending within the housing and pivotally movable about a second axis within the opening, the first axis and the second axis being perpendicular to each other(see figures see figures 1, 4; column 2, lines 1-8; column 3, lines 58-63; column 5, lines 36-68 and column 6, lines 1-27); a movement sensing system(40) configured to sense rotational movement of the rotatable member(2) about the first axis for scrolling the image in a first scrolling direction(vertical direction, up or down)(see figures 1-3; column 2, lines 1-8; column 3, lines 44-63; column 4, lines 23-68; column 5, lines 1-13 and lines 36-55; and column 6, lines 47-56); a sensor(8,9, see figure 3) for detecting an extension force based on the pivotal movement of said rotatable member(2) about the second axis for moving the image in a second direction(horizontal, left or right, pressed the roller member(2) to the arrow 11, the item on a display moving left, pressed the roller member(2) to the arrow 13), the item on a display moving right) perpendicular to the first scrolling direction(vertical, up or

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down); wherein the image(the item) is operable to move in the second direction(horizontal, left or right) responsive to the detected extension force(see figures 1-3; column 5, lines 60-68; column 6, lines 1-56; and column 8, lines 37-65).

Deruginsky et al teach when a user pressed the roller member(2) to the arrow 11, the item on a display moving left, when a user pressed the roller member(2) to the arrow 13, the item on a display moving right (see figures 1-3 and column 8, lines 56-65). Deruginsky et al fail to point out moving an image is scrolling an image.

Naoyuki teaches a method for scrolling image on a display and providing a horizontal scrolling of an image(210c, 210d) when the rotatable member(202 or 212) is pivoted about a second axis(horizontal axis)(see figures 1, 2, 4-5 and paragraphs 8-14). It would have been obvious to have modified Deruginsky et al with the teaching of Naoyuki, so as to allow a user viewing more information in a horizontal direction on a display(see Deruginsky's figure 2-3 and column 8, lines 56-65).

As to claim 2, Deruginsky et al teach rotatable member is laterally movable along the axis(horizontal) within the opening(see figures 1-4; column 5, lines 60-68 and column 6, lines 1-27).

As to claim 3, Deruginsky et al teach the rotatable member including raised side edge and a concave recessed center section(see figure 1).

As to claim 4, Deruginsky et al teach the scroll wheel assembly having a shaft member (36, 2b) along the first axis(vertical axis) and the rotation member(2) being coupled to the shaft member(36, 2b); and the shaft member(2b, 36) being pivotally

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movable about the second axis(horizontal axis)(see figure 1, 3 and column 6, lines 47-65).

As to claim 5, Deruginsky et al teach the scroll wheel assembly include a support member configured for supporting the shaft(36, 2b) and the support being pivotally movable about the second axis(horizontal axis)(see figures 1, 3-4; column 6, lines 30-65;column 7, lines 38-49 and column 8, lines 9-41).

As to claim 6, Deruginsky et al teach a shaft supporting system for permitting shaft member(36, 2b) and the rotatable member(2) to float within the housing(see figures 1, 3 and 4).

As to claim 7, Deruginsky et al teach the shaft supporting system having a pair of arms for supporting a portion of the shaft(36, 2b) and a resilient member positioned between each the cradle and the housing for supporting a respective one of the cradles within the housing(see figures 1, 3-4; claims 11-13, 26; column 3, lines 10-22; column 7, lines 38-49 and column 8, lines 27-37).

As to claim 8, Deruginsky et al teach a scroll wheel assemblyhaving a bracket(see figures 1 and 4).

As to claims 9-12, Naoyuki teaches a scrolling input device for controlling the scrolling speed by sensing the pressure applied to the input device(see figures 1-6, 9-11; abstract and paragraphs 39-45). It would have been obvious to have modified Deruginsky et al with the teaching of Naoyuki, since to apply pressure on a scrolling device to control scrolling speed is more easy and precise than to use scrolling wheel

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rotation speed because controlling the wheel rotation speed is difficult to achieve by a finger manipulation.

As to claim 9, Deruginsky et al as modified teach a method for sensing a first tensile force and a second tensile force greater than the first tensile force (pressure sensing) (see Deruginsky's figure 1, 3 and Naoyuki's figures 1-6, 9-11; abstract and paragraphs 39-45).

As to claims 10-12, Deruginsky et al as modified teach a method for scrolling an image (an item) in a horizontal direction when a user pressed the roller member (2) to the arrow 11 or 13 (see figures 1-3 and column 8, lines 56-65).

8. Claim 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deruginsky et al (6,555,768) in view of Naoyuki (JP 2000-200147) and Takinami (6,016,110).

Claims 13-20, Deruginsky et al as modified fail to disclose a first speed will be changed to a second speed which is greater than the first speed if the period time is greater than a predetermined period of time.

Takinami teaches a first scrolling speed ( $V_b$ ) will be changed to a second speed (e.g.  $V_c$  or  $V_d$ ) which is greater than the first speed ( $V_b$ ) if the period time is greater than a predetermined period of time (see figure 2; column 1, lines 61-68 and column 2, lines 1-13). It would have been obvious to have modified Deruginsky et al as modified with the teaching of Takinami, so a user could be more fast to reach the information that he/she is looking for.

As to claims 13-14, 17 and 19, Deruginsky et al as modified teach an input device for scrolling an image on a display comprising a housing and a scroll wheel(2) being rotatable relative to the housing about an axis to causing the image in a first direction(vertical direction, up and down) and the scrolling wheel being pivotally displaceable relative to the housing cause scrolling in a second direction(horizontal direction, left and right)(see figures 1-4 column 5, lines 60-68; and column 8, lines 56-65).

As to claim 15, Naoyuki teaches the input device is a mouse(see figures 4-5).

As to claim 16, Naoyuki teaches computer input device is a keyboard(see figure 17 and paragraphs 69-70 of the machine translation).

As to claim 18, Deruginsky et al teach the rotatable member(2) is laterally movable long a shaft(36, 2b) extending within the opening(see figures 1, 3-4; column 6, lines 30-65;column 7, lines 38-49 and column 8, lines 9-41).

As to claim 20, Deruginsky et al as modified teach a support member assembly pivotable with the rotatable member(2), the supporting member assembly including laterally extending arms, wherein the sensing system is configured to contact opposing lateral sides of the support member when the rotatable member(12) is moved laterally(see figures 1, 3; column 5, lines 56-68; column 6, lines 1-65; column 8, lines 16-65).

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Oshizawa et al(5,680,312) teach a scrolling speed will be automatically increase when the scrolling key(58) is depressed for more than a predetermined time; e.g. three seconds(see figure 2b; column 4, lines 53-68 and column 5, line 1).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lun-yi Lao whose telephone number is 571-272-7671. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

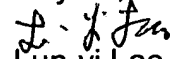
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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July 24, 2006

A handwritten signature in black ink, appearing to read 'L. Y. Lao'.

Lun-yi Lao

**Primary Examiner**